TONE BANK KEYBOARD CTK-100

ELECTRONIC MUSICAL INSTRUMENT
INSTRUMENTO MUSICAL ELECTRONICO

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CASIO

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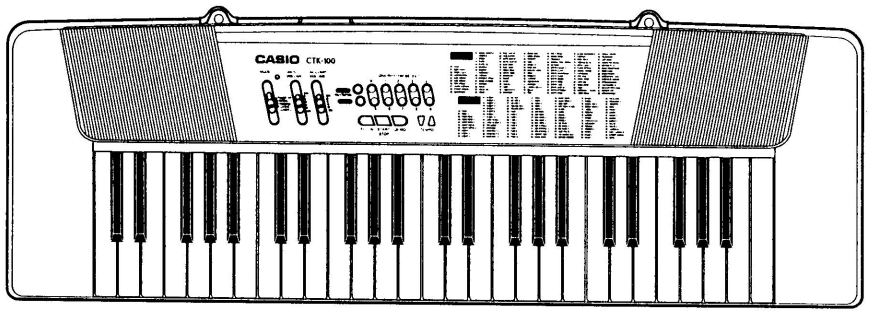

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MA1131C (英) (西) Printed in U.S.A.
CTK100ES-3

U.S. Pats. 4,121,284 4,325,364
4,371,923 4,896,260 4,942,516

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CTK100ES-3

CASIO

TONE BANK KEYBOARD CTK-100
ELECTRONIC MUSICAL INSTRUMENT

Thank you and congratulations on your purchase of the CASIO CTK-100.
In order to enjoy the features and functions of this unit to their fullest, be sure to carefully read this manual and follow the instructions contained herein.

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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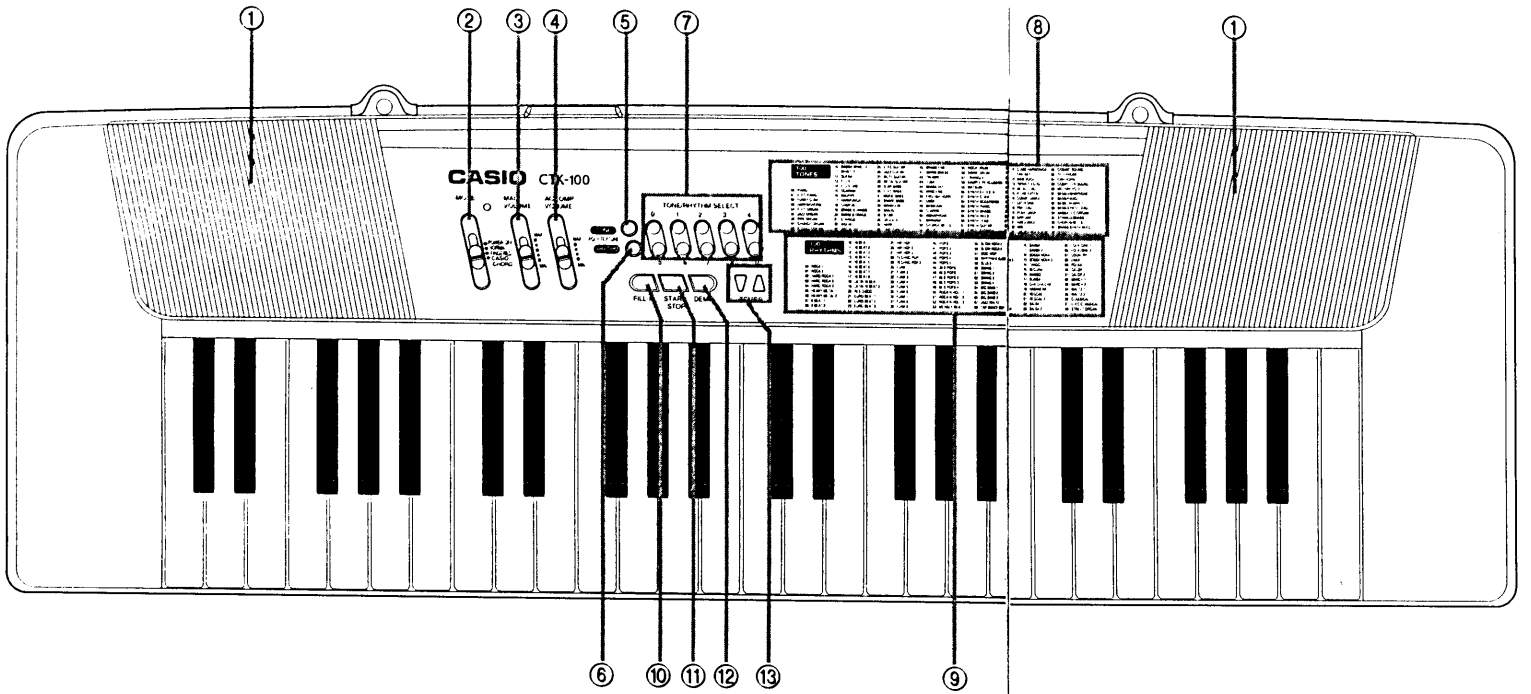
Important
Any of the following conditions indicates that battery power is low and that you should replace batteries or shift to one of the alternate power sources as soon as possible.

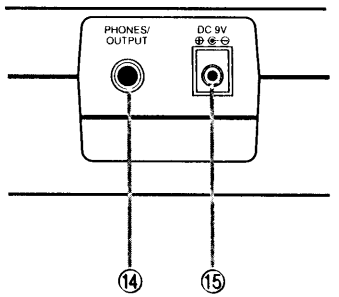
- Dim power supply lamp
- Abnormally low speaker/headphone volume
- Distortion of sound output
- Abnormal auto-play tune playback
- Abnormal rhythm pattern playback
- Continued sound output even after you release a button

Control Locations



①Speaker
②MODE selector
③MAIN VOLUME slider
④ACCOMP VOLUME slider
⑤TONE POLY/TEXTURE button
⑥RHYTHM button
⑦TONE/RHYTHM SELECT buttons
⑧TONES list
⑨RHYTHMS list
⑩FILL-IN button
⑪START/STOP button
⑫DEMO button
⑬TEMPO buttons

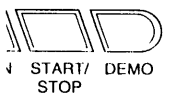
< Rear panel >



⑭PHONES/OUTPUT jack
⑮DC 9V jack

Demonstration Tune

This unit features a preset demonstration tune which has been carefully programmed to showcase all the features and benefits of this unit. Simply press the **DEMO button** ⑫, and listen to the CTK-100 plays itself!



- *The demonstration tune is played in an endless loop. Press the **DEMO button** again to stop the tune.*
- *The keyboard is inoperable while playing the demonstration tune.*

Choosing a Power Supply

You can power your keyboard with 6 AA batteries, standard AC power (with an optional AC adaptor) or by plugging it in to the cigarette lighter of a car (with an optional car adaptor).

Installing the batteries

This keyboard can be powered by 6 AA size (SUM-3/R6P) dry cell batteries. Make sure that the **MODE selector** is set to the POWER OFF position when installing batteries.

1. Open the battery compartment cover on the bottom of the unit.
2. Load new batteries taking care that the plus (+) and minus (–) poles are facing in the correct directions.

• Standard battery life is approximately 3 hours (SUM-3) / 6 hours (AM-3).

Important

Any of the following conditions indicates that battery power is low and that you should replace batteries or shift to one of the alternate power sources as soon as possible.

- Dim power supply lamp
- Abnormally low speaker/headphone volume
- Distortion of sound output
- Abnormal auto-play tune playback
- Abnormal rhythm pattern playback
- Abnormal rhythm pattern playback
- Continued sound output even after you release a button

Precautions

Incorrectly using batteries can cause them to leak or burst, and may damage your unit. Note the following precautions:

- Be sure that the plus (+) and minus (–) poles are facing in the correct directions.
- Do not mix battery types.
- Do not mix new batteries with old ones.
- Never leave dead batteries in the battery compartment.
- Remove batteries when not using the unit for extended periods.
- Never try to recharge the batteries that are specified for the power supply of this unit.
- Do not expose batteries to direct heat, let them become shorted or try to take them apart. (If a battery leaks, clean out the battery compartment of the unit immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.)

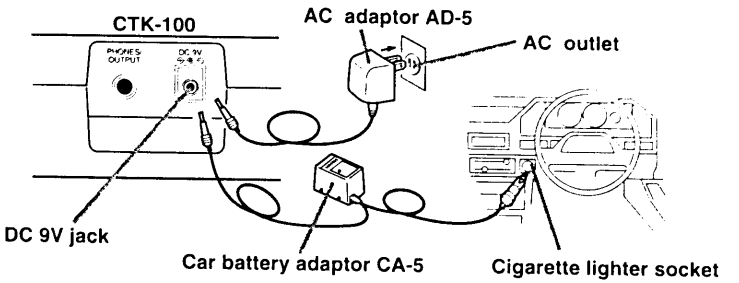
Using AC power

An AC adaptor (AD-5, optional) is required when using household current. Use only genuine CASIO adaptor with the same voltage rating (100, 117, 220 or 240V) as the power supply in your area to prevent damage to internal components. Be sure to turn the power of the unit off before you connect the adaptor to the unit. Plug the AC adaptor into the AC outlet and the cord into the unit. This will automatically cut off the battery power supply.

Using a car's cigarette lighter

With the car adaptor (CA-5 optional), DC power is supplied from a car battery through the cigarette lighter. Be sure to turn the power of the unit off before you connect the adaptor to the unit.

** Car adaptor may not be available in some areas.*

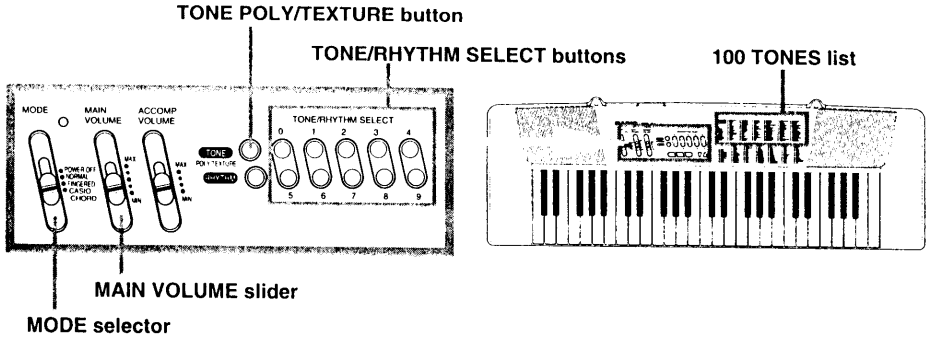


Important

- The adaptor may become warm when it is being used. This is normal and does not indicate any problem.
- Be sure to unplug the adaptor from the power source when you are not using the unit.
- Whenever connecting or disconnecting the adaptor, be sure that the power of the unit is switched off.
- Be sure to unplug the car adaptor from the cigarette lighter socket when you are not using the unit. Leaving the car adaptor plugged in can cause damage or can run down your car's battery.
- Never connect the car adaptor to a 24V DC cigarette lighter (in a bus or truck). Doing so can damage the unit.
- Certain makers of cars may have non-standard cigarette lighter shapes or sizes. Be sure to check the size of your car's cigarette lighter before using the car adaptor.
- Never use a power supply that does not match that specified for the unit. Doing so can damage the adaptor or your unit.

Operation

Playing the keyboard



Follow these steps to play the keyboard.

1. Set the **MAIN VOLUME slider** to the MIN position.

2. Set the **MODE selector** to NORMAL.

3. Select a tone (see "Selecting a preset tone").

4. Play the keyboard, and adjust the **MAIN VOLUME slider** for the desired volume.

Selecting a preset tone

You can choose from 100 preset tones. The name of each tone is labeled with a two-digit number on the keyboard's top panel (**100 TONES list**).

To select a tone, follow the steps below.

1. Press the **TONE POLY/TEXTURE button**. At this time, "PIANO"(No.00) is selected automatically.

2. Enter the two-digit number by pressing the **TONE/RHYTHM SELECT button**. For example, to select OBOE (No.47), press [4] and then [7].

3. To change the tone, repeat step 2 above.

You can also change the selected tone by pressing only one **TONE/RHYTHM SELECT button**. Note the following:

Selected tone	Press	Newly selected tone
No.50	0	No.00
No.00	2	No.02
No.02	5	No.25

Note:
Some of the preset tones split the keyboard and assign two or four sounds to keyboard. The sound produced depends on what position of the keyboard you play. For example, BASS/PIANO (No. 91) puts bass on the left and piano on the right of the keyboard.

POLY/TEXTURE button

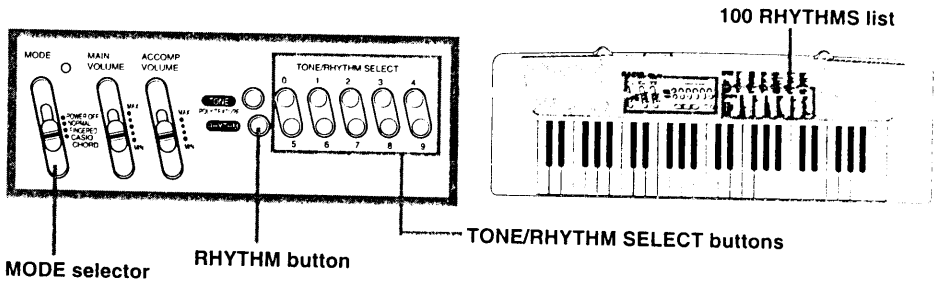
The TONE button also functions as a POLY/TEXTURE button. Once you select a tone, each press of this button switches both the texture of the tone (between thin and thick), and the polyphony of the tone (between 4 and 8).

Important

Some of the 100 tone available with this keyboard are designed for play at less than maximum volume. This means that a "MAX" volume setting may cause distortion of certain tones. Should this happen, use the **MAIN VOLUME slider** to make appropriate adjustment.

Selecting an auto-rhythm

You can choose from 100 auto-rhythms. The name of each rhythm is labeled with a two-digit number on the keyboard's top panel (**100 RHYTHMS list**).



To select an auto-rhythm, follow the steps below.

1. Set the **MODE selector** to NORMAL. At this time "ROCK 1"(No.00) is selected automatically.

2. Press the **RHYTHM button**.

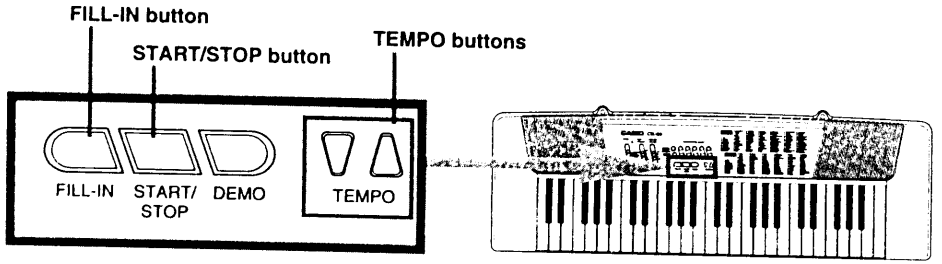
3. Enter the two-digit number by pressing the **TONE/RHYTHM SELECT button**. For example, to select EURO–BEAT 4 (No.24), press [2] and then [4].

4. To change the rhythm, repeat step 3 above.

You can also change the selected rhythm by pressing only one **TONE/RHYTHM SELECT button**. Note the following:

Selected rhythm	Press	Newly selected rhythm
No.50	0	No.00
No.00	2	No.02
No.02	5	No.25

Playing an auto-rhythm



To play an auto-rhythm, follow the steps below.

1. After selecting an auto-rhythm, press **START/STOP button** to start the rhythm.

2. Adjust the tempo using the **TEMPO buttons**. Each press of △ speeds up the tempo, while pressing ▽ slows it down.

**Tempo of the auto-rhythm can be adjusted between 40 and 256 beats per minute.*

3. Adjust the **MAIN VOLUME slider** and **ACCOMP VOLUME slider** for the desired sound balance.

4. Press **START/STOP button** again to stop auto-rhythm play.

Using FILL-IN button

When **FILL-IN button** is pressed during auto-rhythm play, an appropriate fill-in pattern is inserted in the rhythm pattern. If the button is held down, the fill-in pattern is repeated until the end of the measure during which the button is released.

Note:
When playing an auto-rhythm, the polyphony of each preset tone is limited as listed below;

Tone No. 00, 02, 04, 06, 11, 12, 13, 15, 16, 22, 24, 26, 46, 47, 48, 49, 50, 91, 94, 98	6-note polyphonic
Other tones	3-note polyphonic

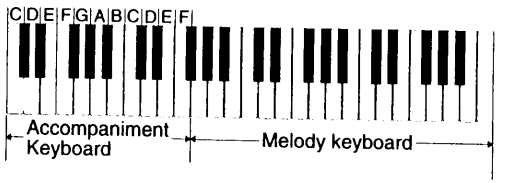
** You can switch the polyphony of the tone between 3 and 6 using **TONE POLY/TEXTURE button** when playing an auto-rhythm (see page 9).*

Auto-accompaniment

This unit features 100 accompaniment patterns that let you add full accompaniments to your performances automatically.
You can select from two types of auto-accompaniment – simplified fingering chord play (CASIO CHORD) or standard fingering (FINGERED).

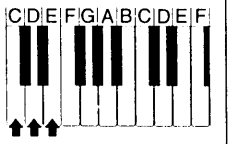
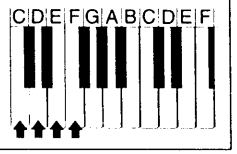
■ Accompaniment keyboard

When you set the **MODE selector** to FINGERED or CASIO CHORD, the keys of the lower 1.5 octave of the keyboard are the accompaniment keys and the rest of the keyboard is the melody section.



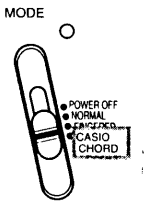
■ Playing an accompaniment using CASIO CHORD

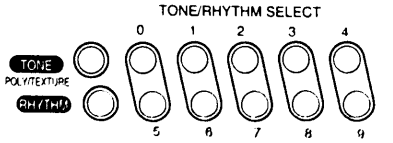
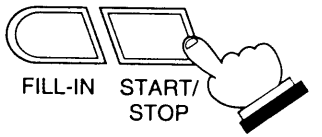
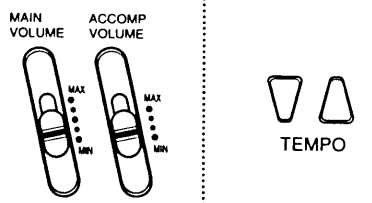
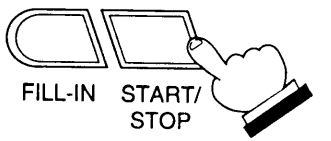
The CASIO CHORD system lets you easily play the four main types of chords. Playing of the chords is simplified as shown in the chart below.

Keys	Chord Type	Example
Pressing **one** accompaniment key	Major chord	C (C Major Chord)
Pressing **two** accompaniment keys	Minor chord	Cm (C Minor Chord)
Pressing **three** accompaniment keys	Seventh chord	C7 (C Seventh Chord) 
Pressing **four** accompaniment keys	Minor seventh chord	Cm7 (C Minor Seventh Chord) 

Note:
The bottom note that you play determines the name of the chord. For example, if the bottom note is C, the keyboard plays a C chord.

Follow these steps to play the CASIO CHORD auto-accompaniment.

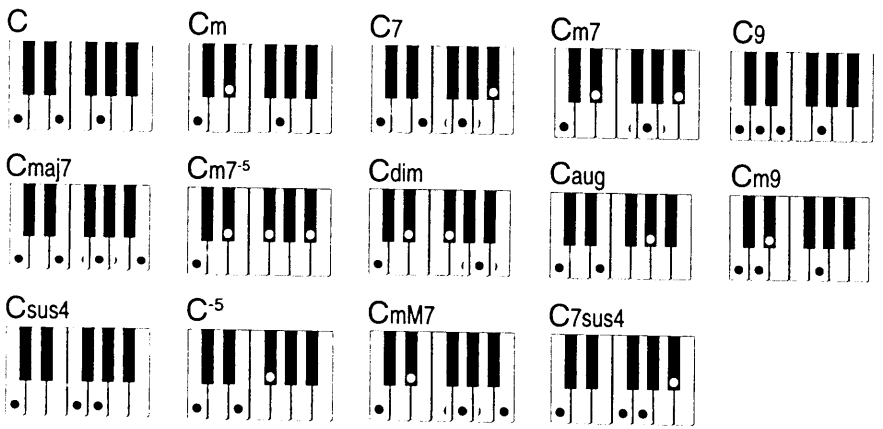
1. Set the **MODE selector** to the CASIO CHORD position.	

2. Select one of the auto-rhythms. (refer to "Selecting an auto-rhythm" on pages 9 and 10.)	
3. Press either one or up to four keys on the accompaniment keyboard, and the corresponding accompaniment starts to play automatically. • If you want to start with the rhythm pattern only, press the **START/STOP button** to start, instead of an accompaniment keyboard key. Then when the rhythm pattern reaches the point where you want to start full accompaniment, press an accompaniment keyboard key or keys to start the full accompaniment.	
4. Adjust **TEMPO [△/▽], MAIN VOLUME slider** and **ACCOMP VOLUME slider**.	
5. Press the **START/STOP button** to stop the auto-accompaniment.	

■ Playing an accompaniment using standard fingering

The standard fingering (FINGERED) mode lets you play a wider variety of chords. You can start an accompaniment pattern by pressing down either three or four of the proper accompaniment keys.

This unit is capable of recognizing 14 different chords. The following shows the fingerings of the recognized chords with a root of C. Note that the fingerings within parentheses can be omitted without changing the sound of the chord produced.



Follow the same steps to play the standard fingering auto-accompaniment as is described on the last page.
However, note the following:

- Set the **MODE selector** to FINGERED position.
- Press ***either 3 or 4 proper accompaniment keys*** as shown above to start the accompaniment play. Fingered chord with less than 3 notes produces no response.

Notes:

- Each of the above examples shows only one of the possible fingerings for each chord. Note that you can play a chord by pressing its notes in any combination.
  For example, each of the following fingerings produce the same C chord.

- When playing an auto-accompaniment, the polyphony of each preset tone is limited as listed below;

Tone No. 00, 02, 04, 06, 11, 12, 13, 15, 16, 22, 24, 26, 46, 47, 48, 49, 50, 91, 94, 98	2-note polyphonic
Other tones	Monophonic

** You can switch the polyphony of the tone between 1 and 2 using **TONE POLY/TEXTURE button** when playing an auto-accompaniment (see page 9).*

- See the "List of Fingered Chord" on pages 34-35 for information on the fingering of chords with all roots.

Troubleshooting

Problem	Possible Cause	Remedy
No sound from the keyboard.	1. Headphones connected. 2. Power supply problem.	1. Unplug headphones. 2. Check power supply. • Are battery poles (+/–) facing correctly? • Are batteries dead? • Is AC adaptor connected correctly?
No rhythm. **No accompaniment.**	**ACCOMP VOLUME** set to MIN.	Slide **ACCOMP VOLUME** setting toward MAX.
No accompaniment even if accompaniment keys are pressed.	**MODE selector** is set to "FINGERED" and accompaniment keys are not pressed correctly (Fingered chord with less than 3 notes produces no response.)	Press either 3 or 4 proper accompaniment keys as shown on page 14.
Occasional interference.	Refrigerators, washing machines and similar electric appliances.	Use outlet as far away as possible from appliance thought to be the cause.
No sound when connected to external amplifier.	Defective connection cord.	Replace connection cord.

Care of Your Keyboard

Avoid heat, humidity or direct sunlight.
Do not overexpose the unit to direct sunlight, or place near an air conditioner, or in any extremely hot place.

Take care not to drop the unit and avoid strong impact.
Strong impact may cause malfunctions. When carrying or transporting the unit, protect the keyboard and switches with soft cloth or other material.

Keep the unit free of liquids, dust, etc.
Do not allow foreign matter to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not let the unit get wet.

Never attempt to modify any parts of the unit.
The unit is a precision instrument, made of electronic parts. Any modification of, or tampering with inner parts may cause malfunction.

Do not use lacquer, thinner or similar chemicals for cleaning.
Clean the keyboard with a soft cloth dampened in a weak solution of water and a neutral detergent. (Soak the cloth in the solution and squeeze until it is almost dry.)

Specifications

Model:	CTK–100
Number of keys:	49
Polyphony:	8-note (max)
Preset tones:	100
Auto-rhythms:	100
Built-in speakers:	10cm dia. (output = 1W)X2
Demonstration tune:	1 (Classical Medley)
Auto-accompaniment:	CASIO CHORD, FINGERED
Terminals:	PHONES/OUTPUT jack [ø 3.5mm, output impedance: 120Ω, output voltage: 3V(RMS)MAX] DC 9V jack
Power source:	3-way AC/DC power sources; AC: 100, 117, 220 or 240 (± 10V), 50/60 Hz, with optional AC adaptor AD-5. DC: 6 AA size dry batteries Battery life: approx. 3 hours (SUM-3/R6P)/6 hours (AM-3/LR6) Car battery: Requires optional CA-5 car adaptor
Power consumption:	5.0W
Dimensions(W x D x H):	857 x 285 x 86 mm (33 3/4" x 11 1/4" x 3 3/8")
Weight:	3.2kg (7.0 lbs)
Standard accessory:	Score stand

* *Design and specifications are subject to change without notice.*